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1 7. The method according to claim 1 wherein said collector simulates
2 the behavior of a standalone probe such that said manager interacts with and configures
3 said collector as though said collector was a standalone probe and said collector
4 configures said ESs.

1 8. The method according to claim 1 wherein said end systems
2 communicate with a plurality of routers using protocols in a TCP/IP protocol suite.

1 9. The method according to claim 1 wherein a plurality of said ESs
2 communicate using an ethernet protocol.

1 10. A bridge for use in a local area network comprising:
2 a plurality of ports capable of transmitting and receiving data on a network
3 segment;
4 a plurality of shared buffer memories for buffering data received on said
5 ports or waiting to be transmitted on said ports;
6 a bridge controller capable of reading the source and destination addresses
7 of a data packet received on one of said ports; and
8 a collector for collecting data traffic statistics from agents operating on
9 other devices in the network and a proxy for receiving configuration packets from a
10 manager and communicating configuration data to said agents.

1 11. The apparatus according to claim 10 wherein said bridge collector
2 forwards traffic statistics to a domain proxy.

1 12. The apparatus according to claim 10 further comprising a means
2 for generating at said collector traffic statistics for multicast packets.

1 13. A local area network comprising:
2 a plurality of end systems, each with a connection to a network segment
3 wherein said end systems are capable of transmitting data on said segment and wherein at
4 least one of said end systems includes an agent for collection of traffic statistics; and
5 a plurality of collectors having connections to receive data from at least
6 one agent in said ESs or from at least one other collector.

1 14. The local area network according to claim 13 wherein said
2 collectors are further capable of detecting multicast packets and compiling traffic
3 statistics on said packets.

1 15. The local area network according to claim 13 wherein said
2 collectors are further capable of receiving probe configuration packets from a network
3 manager and then sending configuration packets to each individual agent in the network.

16. A method for distributed remote network monitor (dRMON) in a LAN comprising:
deploying dRMON agents within ESs said agents implementing prior art RMON functional groups but only capturing and analyzing packets that their native ES sends or receives;
on a regular, periodic basis having the dRMON agents forward statistics and/or captured packets to a dRMON proxy or collector, existing somewhere on the WAN/LAN; and
combining received agent data thereby creating at the proxy the view that a prior-art stand-alone RMON probe would have if all the ES were on the same LAN segment with it.

1 17. The method according to claim 16 wherein said proxy can mimic
2 the SNMP responses of a prior art non-distributed RMON probe so that existing network
3 application management software can interact with the proxy as though the proxy were a
4 prior art probe.

1 18. The method according to claim 16 wherein in a default mode, ESs
2 in the same multicast domain are treated by a proxy as though they are on one LAN
3 segment to RMON applications to interact with the proxy as though it were a prior art
4 probe and in an enhanced dRMON Managers a user is provided with the ability to
5 combine ports and hosts in order to create Virtual LAN (VLAN) definitions to cause the
6 monitoring function to behave as though all selected hosts were on the same LAN
7 segment being served by the same RMON probe with the dRMON collector in this
8 embodiment creating and maintaining several such views with each appearing as one
9 interface to conventional RMON Management applications.

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1 19. The method according to claim 16 whereby said agents perform
2 continual response time monitoring and forward the results to the Proxy.

1 20. The method according to claim 16 whereby said agent software
2 utilizes native OS APIs to gather information about the ES that could not be via packet
3 capture and analysis, such as: (1) Network protocol stack configurations and NIC
4 configurations including problematic situations; (2) Application information ranging from
5 what protocols an application is bound to, to its manufacturer, version, file date and time,
6 DLLs used and their versions, etc.; (3) System information such as memory, CPU, disk
7 space, current resource utilizations, etc.; and (4) System performance metrics.

1 21. An agent for distributed network monitoring comprising:
2 an RMON Engine for receiving a packet stream coming from a DTA and
3 subjecting it to RMON analyses as configured via the proxy;
4 RMON Data Structures;
5 filters;
6 an event generator;
7 Down-Loadable-Modules manager;
8 dRMON Interface Module; and
9 a protocol interface layer.

1 22. The agent of claim 21 implemented in the C programming
2 language with executable code launched each time ES is started or rebooted and the agent
3 may be tightly bound to ES adaptor driver software. Because the dRMON agent has no
4 visible ES user interface, the ES user is totally unaware of the agents presence.

1 23. A proxy for distributed network monitoring comprising:
2 an agent discovery engine for automatically discovering all of the dRMON
3 Agents within its management sphere;
4 a time-stamper for stamping statistics and packets received from agents;
5 an agent configuration for setting how much memory/storage to reserve for
6 RMON data space, version management, etc.;
7 an RMON configuration for setting filters, historical sampling intervals
8 and other MIB-defined user-settable options; and

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an updater for automatically updating agents via the network.

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